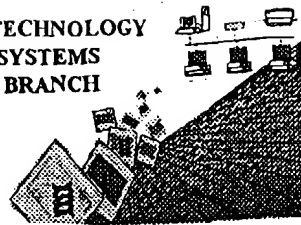# RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information
Center (STIC) detected errors when processing the following computer readable
form:

Application Serial Number: 09/910,354

Source: I F (W) 16

Date Processed by STIC: 5/28/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE
    APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A
    NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u>
<u>VERSION 4.2 PROGRAM</u> ACCESSIBLE THROUGH THE U S PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
        http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is
a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the
United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission
    User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
    U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby,
    Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/910,354

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics   The number/text at the end of each line "wrapped" down to the next line. This may occur if your file
       Wrapped Aminos   was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will
                          prevent "wrapping."

2 ____ Invalid Line Length   The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino   The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers;
       Numbering   use space characters, instead.

4 ____ Non-ASCII   The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please
                   ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length   Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules,
                         each n or Xaa can only represent a single residue. Please present the maximum number of each
                         residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0   A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
       "bug"   sequences(s) _____. Normally, PatentIn would automatically generate this section from the
                      previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to
                      the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for
                      Artificial or Unknown sequences.

7 ____ Skipped Sequences   Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
       (OLD RULES)   (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
                           (i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
                           (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
                           This sequence is intentionally skipped

                           Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences   Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence
       (NEW RULES)   <210> sequence id number
                           <400> sequence id number
                           000

9 ____ Use of n's or Xaa's   Use of n's and/or Xaa's have been detected in the Sequence Listing.
       (NEW RULES)   Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
                             In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213>   Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or
        Response   scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or
                        is Artificial Sequence

11 ____ Use of <220>   Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
                       Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or
                       "Unknown." Please explain source of genetic material in <220> to <223> section.
                       (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0   Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file,
        "bug"   resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence
                       listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n/Xaa   "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

AMC – Biotechnology Systems Branch – 09/09/2003

IFW16

```
RAW SEQUENCE LISTING              DATE: 05/28/2004
PATENT APPLICATION:  US/09/910,354    TIME: 13:27:24

Input Set : A:\PTO.YF.txt
Output Set: N:\CRF4\05282004\I910354.raw

 3 <110> APPLICANT: Jarrell, et al., Kevin
 5 <120> TITLE OF INVENTION: Modular Vector Systems
 7 <130> FILE REFERENCE: 2003320-0032
 9 <140> CURRENT APPLICATION NUMBER: 09/910,354
10 <141> CURRENT FILING DATE: 2001-07-20
12 <160> NUMBER OF SEQ ID NOS: 24
14 <170> SOFTWARE: PatentIn version 3.2
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 23
18 <212> TYPE: DNA
19 <213> ORGANISM: PCR primer EU-1 for amplification of a vector fragment containing
W-->20 bacterical origin of replication, Lac I gene, and pT7 promoter.
22 <400> SEQUENCE: 1
23 cauggtatat ctccttctta aag
26 <210> SEQ ID NO: 2
27 <211> LENGTH: 22
28 <212> TYPE: DNA
29 <213> ORGANISM: PCR primer Eu-2 for amplification of a vector fragment containing
W-->30 bacterial origin of replication, Lac I gene, and pT7 promoter.
32 <400> SEQUENCE: 2
33 cucatgacca aaatccctta ac
36 <210> SEQ ID NO: 3
37 <211> LENGTH: 22
38 <212> TYPE: DNA
39 <213> ORGANISM: PCR primer EU-3 for amplification of a vector fragment containing Amp
W-->40 gene.
42 <400> SEQUENCE: 3
43 gagattatca aaaaggatct tc
46 <210> SEQ ID NO: 4
47 <211> LENGTH: 20
48 <212> TYPE: DNA
49 <213> ORGANISM: PCR primer EU-4 for amplification of a vector fragment containing Amp
W-->50 gene.
52 <400> SEQUENCE: 4
53 uaactagcat aaccccttgg
56 <210> SEQ ID NO: 5
57 <211> LENGTH: 21
58 <212> TYPE: DNA
59 <213> ORGANISM: PCR primer 5' Lac Z for amplification of an insert fragment containing
W-->60 Lac Z gene.
62 <400> SEQUENCE: 5
63 augaccatga ttacgccaac g
66 <210> SEQ ID NO: 6
```

Handwritten annotations:
pls See item #10 on error summary sheet.
pls move this response to line [223]
Does Not Comply
Corrected Diskette Needed (pg. 1-4)
mandatory, <213> response has to be either artificial, unknown or Genus/Species.
Invalid <213> Response
SAME ERROR 23
SAME ERROR 22
SAME ERROR 22
SAME ERROR 20
SAME ERROR 21

√ SAME
errors

Input Set : **A:\PTO.YP.txt**
Output Set: **N:\CRF4\05282004\I910354.raw**

```
 67 <211> LENGTH: 22
 68 <212> TYPE: DNA
 69 <213> ORGANISM: PCR primer 3' Lac Z for amplification of an insert fragment containing
√--> 70 Lac Z gene.
 72 <400> SEQUENCE: 6
 73 uuacaatttc cattcgccat tc                                           22
 76 <210> SEQ ID NO: 7
 77 <211> LENGTH: 37
 78 <212> TYPE: DNA
 79 <213> ORGANISM: PCR primer 5' OST for amplifying an Ori fragment from pET 19 b.
 81 <400> SEQUENCE: 7
 82 ctgctaagtg agcucgacag atcgctgaga taggtgc                           37
 85 <210> SEQ ID NO: 8
 86 <211> LENGTH: 36
 87 <212> TYPE: DNA
 88 <213> ORGANISM: PCR primer 1N 3' Ori(s) for amplifying an Ori fragment from pET 19b.
 90 <400> SEQUENCE: 8
 91 aagcttgcta agtagggcgt ttttccatag gctccg                            36
 94 <210> SEQ ID NO: 9
 95 <211> LENGTH: 36
 96 <212> TYPE: DNA
 97 <213> ORGANISM: PCR primer 1NT5'KAN for amplifying a fragment containing the kanamycin
√--> 98 resistance gene from pCR2.1 topo.
100 <400> SEQUENCE: 9
101 ctacctagca agctuctatc tggacaaggg aaaacg                            36
104 <210> SEQ ID NO: 10
105 <211> LENGTH: 41
106 <212> TYPE: DNA
107 <213> ORGANISM: PCR primer T73' KAN for amplifying a fragment containing the
kanamycin
√--> 108 resistance gene from pCR2.1 topo.
110 <400> SEQUENCE: 10
111 ccctatagtg agtcgtatta aggcgaaaac tctcaaggat c                      41
114 <210> SEQ ID NO: 11
115 <211> LENGTH: 42
116 <212> TYPE: DNA
117 <213> ORGANISM: PCR primer tcs1 for amplifying a fragment containing the luciferase
jene
√--> 118 from pG1 II basic.
120 <400> SEQUENCE: 11
121 ttaatacgac tcactatagg gatggaagac gccaaaaaca ta                     42
124 <210> SEQ ID NO: 12
125 <211> LENGTH: 36
126 <212> TYPE: DNA
127 <213> ORGANISM: PCR primer tc58 for amplifying a fragment containing the luciferase
jene
√--> 128 from pG1 II basic.
130 <400> SEQUENCE: 12
131 gagctcactt agcagttaca atttggactt ccgcc                             36
134 <210> SEQ ID NO: 13
135 <211> LENGTH: 36
136 <212> TYPE: DNA
```

√ SAME
√ ERRORS

RAW SEQUENCE LISTING   DATE: 05/28/2004
PATENT APPLICATION: US/09/910,354   TIME: 13:27:24

    Input Set : A:\PTO.YF.txt
    Output Set: N:\CRF4\05282004\I910354.raw

```
   137 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying a fragment containing the
anamycin
--> 138 resistance gene from pCR 2.1 topo.
   140 <400> SEQUENCE: 13
   141 ctacctagca agctuctatc tggacaaggg aaaacg                                36
   144 <210> SEQ ID NO: 14
   145 <211> LENGTH: 33
   146 <212> TYPE: DNA
   147 <213> ORGANISM: PCR primer 1NT 3'KAN for amplifying a fragment containing the
anamycin
--> 148 resistance gene from pCR 2.1 topo.
   150 <400> SEQUENCE: 14
   151 gagctcactt agcaaggcga aaactctcaa gga                                   33
   154 <210> SEQ ID NO: 15
   155 <211> LENGTH: 37
   156 <212> TYPE: DNA
   157 <213> ORGANISM: PCR primer 1NT5' Ori for amplifying a fragment containing the Ori
rom
--> 158 pET 19b.
   160 <400> SEQUENCE: 15
   161 ttgctaagtg agcucgacag atcgctgaga taggtgc                               37
   164 <210> SEQ ID NO: 16
   165 <211> LENGTH: 36
   166 <212> TYPE: DNA
   167 <213> ORGANISM: PCR primer 1N3'Ori(s) for amplifying a fragment containing the Ori
rom
--> 168 pET 19b
   170 <400> SEQUENCE: 16
   171 aagcttgcta agtagggcgt ttttccatag gctccg                                36
   174 <210> SEQ ID NO: 17
   175 <211> LENGTH: 37
   176 <212> TYPE: DNA
   177 <213> ORGANISM: PCR primer 3nt 5'OST for amplifying an Ori fragment.
   179 <400> SEQUENCE: 17
   180 ctgctaagtg agcucgacag atcgctgaga taggtgc                               37
   183 <210> SEQ ID NO: 18
   184 <211> LENGTH: 36
   185 <212> TYPE: DNA
   186 <213> ORGANISM: PCR primer 3nt 5'OST for amplfiying an Ori fragment.
   188 <400> SEQUENCE: 18
   189 aagcttgcta gguaggctac gtcttgctgg cgttcg                                36
   192 <210> SEQ ID NO: 19
   193 <211> LENGTH: 36
   194 <212> TYPE: DNA
   195 <213> ORGANISM: PCR primer 3nt 5'KHT for amplifiying a KAN fragment
   197 <400> SEQUENCE: 19
   198 ctacctagca agcuuctatc tggacaaggg aaaacg                                36
   201 <210> SEQ ID NO: 20
   202 <211> LENGTH: 35
   203 <212> TYPE: DNA
   204 <213> ORGANISM: PCR primer 3nt 3'KST for amplifying an Ori(s) fragment.
   206 <400> SEQUENCE: 20
   207 gagctcactt agcagggcga aaactctcaa ggatc                                 35
```

RAW SEQUENCE LISTING   DATE: 05/28/2004
PATENT APPLICATION: US/09/910,354   TIME: 13:27:24

       Input Set : A:\PTO.YF.txt
       Output Set: N:\CRF4\05282004\I910354.raw

√ SAME
√ ERRORS

```
210 <210> SEQ ID NO: 21
211 <211> LENGTH: 37
212 <212> TYPE: DNA
213 <213> ORGANISM: PCR primer 1NT 5'ORI for amplifying an Ori(s) fragment.
215 <400> SEQUENCE: 21
216 ttgctaagtg agctcgacag atcgctgaga taggtgc                                    37
219 <210> SEQ ID NO: 22
220 <211> LENGTH: 36
221 <212> TYPE: DNA
222 <213> ORGANISM: PCR primer 1NT3' Ori(s) for amplifying an Ori(s) fragment.
224 <400> SEQUENCE: 22
225 aagcttgcta ggtagggcgt ttttccatag gctccg                                     36
228 <210> SEQ ID NO: 23
229 <211> LENGTH: 36
230 <212> TYPE: DNA
231 <213> ORGANISM: PCR primer 1NT 5'KAN for amplifying an KAN fragment.
233 <400> SEQUENCE: 23
234 ctacctagca agctuctatc tggacaaggg aaaacg                                      36
237 <210> SEQ ID NO: 24
238 <211> LENGTH: 33
239 <212> TYPE: DNA
240 <213> ORGANISM: PCR primer 1NT3'KAN for amplifying an Ori(s).
242 <400> SEQUENCE: 24
243 gagctcactt agcaaggcga aaactctcaa gga                                         33
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/28/2004
PATENT APPLICATION: US/09/910,354   TIME: 13:27:25

Input Set : **A:\PTO.YF.txt**
Output Set: **N:\CRF4\05282004\I910354.raw**

<u>Invalid Line Length:</u>
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:11; Line(s) 117
Seq#:12; Line(s) 127

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/910,354**

DATE: 05/28/2004
TIME: 13:27:25

Input Set : **A:\PTO.YF.txt**
Output Set: **N:\CRF4\05282004\I910354.raw**

```
L:20 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:30 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:40 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:50 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:60 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:70 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:98 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:108 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:118 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:128 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:138 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:148 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:158 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:168 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
```